Fall 2015 Levee Maintenance Deficiency Summary Report Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

NA0008	Overall LMA	Total LMA						
Knights Landing Ridge Drainage	Rating	Miles						
District	M	12.39					l 5 : 6	
Rated Item	Maintenance Deficiancy			Enforc	ement	Design & System Obsolescence		
Rateu item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
Earthen Levee				T		ı		ı
Vegetation	0.73	0.01	0.77	6.22%				
Encroachments					0.83			
Animal Control	0.04	0.02	0.12	0.97%				
Erosion / Bank Caving		0.01	0.04	0.32%				
Cracking							0.06	
Crown Surface / Depressions / Rutting	0.01		0.01	0.08%				
Supplemental		I				I	ı	I
2015 USACE Erosion Survey, DRAFT	1.43		1.43	11.54%				
DWR UCIP Field Study					0.11	0.03		
LMA Totals:	2.21	0.04	2.37	19.13%	0.94	0.03	0.06	0.00
Unit No. 01 Knights Landing Ridge Cut	Overall Unit	Total Unit	4 Overall Unit	Threshold Percei	nt in lana th	an 10 00%	· howover	
RB	Rating	Miles		es are present, so				
NA0008	M *	6.36	instead of A	•				
		Maintena	intenance Deficiancy		Enforcement			& System
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	1	M Miles	U Miles
Earthen Levee		•	1	71		000		000
Encroachments					0.80			
Animal Control	0.02	0.01	0.06	0.94%				
Erosion / Bank Caving		0.01	0.04	0.63%				
Crown Surface / Depressions / Rutting	0.01		0.01	0.16%				
Supplemental								
2015 USACE Erosion Survey, DRAFT	0.15		0.15	2.36%				
DWR UCIP Field Study					0.08	0.01		
Unit Totals:	0.18	0.02	0.26	4.09% *	0.88	0.01	0.00	0.00
Unit No. 02 Knights Landing Ridge Cut	Overall Unit	Total Unit						
LB	Rating	Miles						
NA0008	U	6.03						
INACCOO			nce Deficiancy		Enforce	ement		& System
Rated Item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles		Obsole M Miles	U Miles
Earthen Levee	W WIICS	O IVIIIC3	IVI 1 40 IVIIIC3	THICSHOID 70	IVI IVIIICS	O WIIICS	IVI IVIIICS	O IVIIICS
Vegetation	0.73	0.01	0.77	12.77%				
Encroachments					0.03			
Animal Control	0.02	0.01	0.06	0.99%				
Cracking		2.0.	2.00	212070			0.06	
Supplemental							0.00	
2015 USACE Erosion Survey, DRAFT	1.28		1.28	21.22%				
DWR UCIP Field Study					0.03	0.02		
Unit Totals:	2.03	0.02	2.11	34.98%	0.06	0.02	0.06	0.00
em rotaio.		0.02		00075	0.00	0.0_	0.00	0.00

LMA District Cover Sheet

Fall 2015 Levee Inspection Results

Knights Landing Ridge Drainage District

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)					
* Overall LMA Rating (Fall Only)			М						
	** Non-receipt of Su	ımmer or Winter Inspe	ection Reports may effect	ct overall annual rating					
* SPRING INSPECTIONS: Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall. FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indiction of risk.									
Comments									

Unit Cover Sheet

Fall 2015 Levee Inspection Results

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles
Unit No. 01 Knights Landing Ridge Cut	Right	6.36

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			М	
Date of Inspection	04/23/2015 - 04/23/2015		09/29/2015 - 09/29/2015	
DWR Inspector	Jai Lor		Jai Lor	
Accompanied By				

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start		Rating **	Α	Issue No.		3	
LM End		Location *		N/A			
Category	Earthen Levee			GPS La	atitud	le/Longitude	
Category				Start		End	
Operations & Maintenance				0		0	
item	Manuals				٥		0
DWR ID	DWR_NA0	008_01_s _ 201	3_3				
		Action/	Comme	nts			
Inspector (Comments	: District has	levee O	&M manuals	S.		

No Photos

Rating ** Issue No. LM Start 8 LM End Issue Type + Ма Location * N/A Earthen Levee GPS Latitude/Longitude Category End **Emergency Supplies &** Item Equipment DWR ID DWR_NA0008_01_s _ 2013_8 Action/Comments

No Photos

Inspector Comments: District maintains a stockpile of flood fight response material.

LM Start		Rating **	Α	Issue No.		9	
LM End		Issue Type +	Ма	Location *		N/A	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Category			Start		End		
Item	Flood Pre	paredness &	Training		0		0
пеш				0		0	
DWR ID	DWR_NA0008_01_s _ 2013_9						
	Action/Comments						

No Photos

Inspector Comments: District has written response plan and regular flood fight training.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	0.00	Rating **	Α	Issue No.	14		
LM End	6.35	Issue Type +	Ма	Location *	LS		
Category Earthen Levee				GPS Latitude/Longitude			
Category			Start		End		
Item	Vegetatio	n		38.7190	63 °	38.792438	0
item		-121.664139 °		-121.726674	0		
DWR ID	DWR_NA0008_01_f _ 2015_14						
Action/Comments							

Control annual grass and weeds on the levee slopes and easements. Inspector Comments: The LMA has maintained the vegetation on the slope.

Photo 1 of 1: FA_2015_NA0008_256_14_20151005_00013.jpg



View of the vegetation on the landward side of the levee looking upstream. Fall 2015.

LM Start	0.00	Rating **	Α	Issue No.	15		
LM End	6.35	Issue Type +	Ma	Location *	WS		
Category Earthen Levee				GPS Latitude/Longitude			
Calegory				Start		End	
Item	Vegetatio	n		38.71906	3 °	38.792438	0
пеш			-121.66414	0°	-121.726674	0	
DWR ID	DWR_NA0008_01_f _ 2015_15						
	Action/Comments						

Control annual grass and weeds on the levee slopes and easements. Inspector Comments: The LMA has maintained the vegetation on the slope.

No Photos

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	0.25	0.25 Rating ** U Issue		Issue No.	26		
LM End	0.25	Issue Type +	En	Location *		WS	
Category Supplemental				GPS Lat	itud	e/Longitude	
Category				Start		End	
Item	DWR UCI	P Field Study		38.72222	2 °	38.722222	0
пеш				-121.66635	7 °	-121.666357	0
DWR ID							

Action/Comments

Inspector Comments: FS_ID:13203

DS_ID:19360 EP_NO: 9302 FS_HLM: 0.254 Repair Type: Urgent Crossing Status: Found

UCIP Comments: Pipe completely rusted through on LS slope of levee at toe/headwall of concrete distribution box. Pipe needs replacement or prepar abandonment. Pipe net visible at cutlet

proper abandonment. Pipe not visible at outlet.

FIELD_STRUCT_DESC: 36-inch pipe through the levee, 27.0 feet below the crown. Slide gate on the waterward end. 12'X6' Concrete box on the landward end (Permit No. 9302-Elliott). Originally included in O+M manual (1953). 18-inch welded Steel pipe, sleeved through 36-inch with annular space grouted (Permit No. 18987, 2015).

FS Date: 04/05/2013

LM Start	0.25	Rating **	U	Issue No.	26 (cont)
LM End	0.25	Issue Type +	En	Location *	WS



Pipe failure at connection to concrete box on LS toe.

Photo 2 of 3 : UCIP_FA_2015_0270.jpg



Slide gate on metal stand on WS toe. Pipe opening not visible.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	0.25	Rating **	U	Issue No.	26 (cont)		
LM End	0.25	Issue Type +	En	Location *	WS		
Category Supplemental GPS Latitude/Longi						le/Longitude	
Calegory			Start End				
Item	DWR UC	OWR UCIP Field Study			22 °	38.722222	٥
item				-121.6663	57°	-121.666357	0
DWR ID					·		
		Action/	Comme	nts			
Inspector Comments: FS_ID:13203							
DS_ID:19360							
ED NO. 0	302						

EP_NO: 9302 FS_HLM: 0.254 Repair Type: Urgent Crossing Status: Found



Concrete distribution box on LS toe.

LM Start	0.73	Rating **	М	Issue No.		16	
LM End	0.73	Issue Type +	En	Location *		WS	
Category Earthen Levee				GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Encroachi	Encroachments			06 °	38.726906	
пеш				-121.6727	44 °	-121.672744	
DWR ID	DWR_NA0	008_01_f _ 201	5_16				
		Action/	Comme	nts			
Debris							



View of the debris on the waterward side of the levee looking upstream. Fall 2015.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	0.87	Rating **	М	Issue No.		27
LM End	0.87	Issue Type +	En	Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UCI	IP Field Study		38.72786	9°	38.727869 °
пеш				-121.67487	5 °	-121.674875 °
DWR ID						·

Action/Comments

Inspector Comments: FS_ID:11064

DS_ID:19361 EP_NO: 9302 FS_HLM: 0.878

Repair Type: Non-Urgent Crossing Status: Found

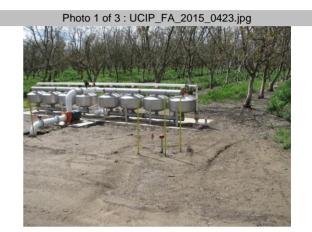
UCIP Comments: Pipe exposed on WS slope in trench may need to be

backfilled to prevent erosion under pipe.

FIELD_STRUCT_DESC: 20-inch steel irrigation pipe through the levee, 8.8 feet below the crown. Pump on steel pile structure at WS toe. Siphon breaker in 12-inch steel riser on LS slope. Possible butterfly valve at LS toe. (Permit No. 9302-Elliott 1974), Originally included in O+M manual (1953).

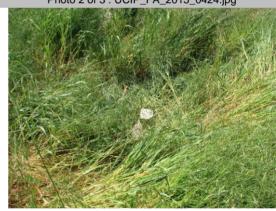
FS Date: 04/05/2013

LM Start	0.87	Rating **	М	Issue No.	27 (cont)
LM End	0.87	Issue Type +	En	Location *	WS



Possible butterfly valve off LS toe.

Photo 2 of 3: UCIP FA 2015 0424.jpg



Siphon brreaker in 12-inch steel riser on LS slope.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	0.87	Rating **	М	Issue No.		27 (cont)		
LM End	0.87	Issue Type + En		Location *		Location *		WS
Category Supplemental				GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR UC	IP Field Study		38.7278	69°	38.727869°		
item				-121.6748	75 °	-121.674875 °		
DWR ID					·			
	A ation / Common ante							

Action/Comments

Inspector Comments: FS_ID:11064

DS_ID:19361 EP_NO: 9302 FS_HLM: 0.878

Repair Type: Non-Urgent Crossing Status: Found



Pump on pile at WS toe with pipe in open trench on LS slope.

LM Start	1.14	Rating **	М	Issue No.		28	
LM End	1.14	Issue Type +	En	Location *		WS	
Category	Supplemental				GPS Latitude/Longitude		
Calegory				Start		End	
Item	DWR UCI	P Field Study		38.7302	75 °	38.730275 °	
iteiii				-121.6789	75 °	-121.678975 °	
DWR ID						,	

Action/Comments

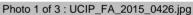
Inspector Comments: FS_ID:11065

DS_ID:19362 EP_NO: 9305 FS_HLM: 1.158

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Slope on WS shoulder appears to be eroding at pipes exit from levee. 36-inch conc riser on LS is filled with mud. FIELD_STRUCT_DESC: 10-inch pipe through the levee, 5.8-feet below the crown. Pump at the waterward toe. 36-inch Concrete standpipe at the landward toe (Permit No. 9305-Bacchini). 5-inch steel-pipe sleeved through 10-inch pipe. Annular space Grouted. (Permit No. 6076-Bacchini). Originally included in O+M manual (1953).

FS Date: 04/05/2013





36-inch Concrete standpipe at LS toe

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	1.14	Rating **	М	Issue No.		28 (cont)
LM End	1.14	Issue Type +	En	Location *		WS
Category	Suppleme	ental	GPS Latitude/Longitud			
Calegory				Start		End
Item	DWR UCI	P Field Study		38.73027	′5 °	38.730275 °
пеш				-121.67897	75 °	-121.678975 °
DWR ID						·

Action/Comments

Inspector Comments: FS_ID:11065 DS_ID:19362

EP_NO: 9305 FS_HLM: 1.158

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Slope on WS shoulder appears to be eroding at pipes exit from levee. 36-inch conc riser on LS is filled with mud. FIELD_STRUCT_DESC: 10-inch pipe through the levee, 5.8-feet below the crown. Pump at the waterward toe. 36-inch Concrete standpipe at the landward toe (Permit No. 9305-Bacchini). 5-inch steel-pipe sleeved through 10-inch pipe. Annular space Grouted. (Permit No. 6076-Bacchini). Originally included in O+M manual (1953).

FS Date: 04/05/2013

LM Start	1.14	Rating **	М	Issue No.	28 (cont)
LM End	1.14	Issue Type +	En	Location *	WS



Erosion at pipes exit from levee on WS shoulder.

Photo 3 of 3 : UCIP_FA_2015_0428.jpg



Pump on WS shoulder overgrown and may be abandoned.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	1.59	Rating **	М	Issue No.	29		
LM End	1.59	Issue Type +	En	Location *		WS	
Category			GPS Latitude/Longitude				
Calegory				Start End		End	
Item	DWR UC	IP Field Study		38.7353	99 °	38.735399	٥
item				-121.6840	.735399 ° 38.7353		0
DWR ID							
Action/Comments							

Inspector Comments: FS_ID:13204

DS_ID:19363 EP_NO: 9302 FS_HLM: 1.61

Repair Type: Non-Urgent Crossing Status: Found

LM Start	1.59	Rating **	М	Issue No.	29 (cont)
LM End	1.59	Issue Type +	En	Location *	WS



16-inch pipe sleeved through 24-inch pipe on WS slope.



Pipe and pier on WS toe.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	1.59	Rating **	М	Issue No.		29 (cont)			
LM End	1.59	Issue Type +	En	Location *		WS			
Category	Supplemental			GPS Latitude/Longitude					
Calegory				Start		End			
Itom	DWR UC	IP Field Study	,	38.7353	99 °	38.735399°			
item	Item			-121.6840	58 °	-121.684058 °			
DWR ID									
	A - 1' 1'O 1 -								

Action/Comments

Inspector Comments: FS_ID:13204

DS_ID:19363 EP_NO: 9302 FS_HLM: 1.61

Repair Type: Non-Urgent Crossing Status: Found



Siphon breaker on LS slope.

LM Start	2.58	Rating **	М	Issue No.		30	
LM End	2.58	Issue Type +	En	Location *	WS		
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start End		End	
Itom	DWR UCI	IP Field Study		38.7471	10°	38.747110 °	
пеш	Item			-121.6944	15 °	-121.694415 °	
DWR ID							

Action/Comments

Inspector Comments: FS_ID:11067

DS ID:19364 EP_NO: 9307 FS_HLM: 2.606

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Siphon breaker on LS burried or broken off and missing.

FIELD_STRUCT_DESC: 1 of 2: 14-inch pipe through the levee, 5.4feet below crown. Pump house on pile structure at the landward toe Siphon breaker on the landward slope. Service pole and anchor at landward toe (Permit No. 9307- Lowe). Originally included in O+M manual (1953) FS Date: 04/05/2013

Photo 1 of 1: UCIP_FA_2015_0445.jpg



Pump and pipe on LS toe.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	2.58	Rating **	М	Issue No.		17
LM End	2.58	Issue Type +	En	Location *	LS	
Category Earthen Levee			GPS Latitude/Longitude			
Calegory				Start End		End
Item	Encroachments			38.74710)9 °	38.747109°
item						-121.694426 °
DWR ID DWR_NA0008_01_f _ 2015_17						
Action/Comments						

Pipe

Inspector Comments: The pipe on the landward side of the levee is partially exposed by the farmer.



View of the pipe on the landward side of the levee looking downstream. Fall 2015.

Rating * Issue No. 2.58 17 (cont) LM Start Issue Type + Location * LS LM End 2.58

Photo 2 of 3: FA_2015_NA0008_256_17_20151005_00016.jpg



Looking towards the crown of the levee from the landward toe. Fall 2015.

LM Start	2.58	Rating **	М	Issue No.	17 (cont)
I M End	2.58	Issue Type +	En	Location *	LS



View of the pump of the pipe at the toe of the levee on the landward side. Fall 2015.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	2.58 Rating ** M		Issue No.		31	
LM End	2.58	Issue Type +	En	Location *		LS
Category Supplemental				GPS La	atitud	e/Longitude
				Start		End
Item	DWR UCIP Field Study			38.7472	04 °	38.747204 °
item		-121.6944	40 °	-121.694440 °		
DWR ID						
Action/Comments						

Inspector Comments: FS_ID:13205

DS_ID:19391 EP_NO: 9307 FS_HLM: 2.613

LM Start

LM End

Repair Type: Non-Urgent Crossing Status: Found

2.58

2.58



Photo 1 of 2: UCIP_FA_2015_0275.jpg

Slide gate and concrete headwall on WS toe.

 Rating **
 M
 Issue No.
 31 (cont)

 Issue Type +
 En
 Location *
 LS



Concrete inlet on LS toe.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	2.58 Rating ** C Issue No.		Issue No.		19		
LM End	2.58	Issue Type +	Ma	Location *		WS	
Category	GPS Latitude/Longitude						
Calegory	Category				Start End		
Item	Cracking				18°	38.747218	٥
item				-121.6944	50°	-121.694450	٥
DWR ID	DWR_NA0008_01_f _ 2013_19						
Action/Comments							

Monitor and have inspected by geotechnical engineer. Inspector Comments: Cracks along crown and down waterside slope. No Photos

Rating ** Issue No. LM Start 2.68 M 32 LM End 2.68 Issue Type + En Location * WS Supplemental GPS Latitude/Longitude Category Start End DWR UCIP Field Study 38.748524 ° 38.748524 ° Item -121.694788° -121.694788 ° DWR ID

Action/Comments

Inspector Comments: FS_ID:41892

DS ID:19383 EP_NO: 13164 FS_HLM: 2.708

Repair Type: Non-Urgent Crossing Status: Not Found

UCIP Comments: Need to contact owner to determine status of crossing and install markers if appropriate.

FIELD_STRUCT_DESC: 4-inch steel natural gas collection pipe through the levee 2.8-feet below the crown. Pipe attached to

downstream side of bridge. Design drawings available in permit. (Permit No. 13164, 1981)

FS Date: 04/05/2013

No Photos

N: Not Inspected/Rated A/W: Acceptable but Monitor & Maintain Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	2.70	Rating **	М	Issue No.		18
LM End	2.70	Issue Type +	En	Location *		LS
Category	Earthen L	GPS Latitude/Longitude				
Calegory	Category					End
Item	Encroachments			38.7488	37 °	38.748837 °
item			-121.6948	23 °	-121.694823 °	
DWR ID	ID DWR_NA0008_01_f _ 2015_18					
A - 1' 10 1 -						

Action/Comments

Pipe

Inspector Comments: Portion of the pipe seems to be replaced and the abandoned pipe is left at the toe of the landward side of the levee.



View of the abandoned pipe at the toe of levee on the landward side. Fall 2015.

LM Start 2.70 Rating ** M Issue No. 18 (cont) LM End 2.70 Issue Type + En Location * LS

Photo 2 of 2: FA_2015_NA0008_256_18_20151005_00019.jpg



The dark portion on the left pipe seems to have been replaced with a new pipe. Fall 2015.

LM Start	3.36 Rating ** M		Issue No.		2	
LM End	3.44	Issue Type + Ma		Location *		WS
Category	Suppleme	GPS Latitude/Longitude				
Calegory	legory					End
Item		2015 USACE Erosion Survey,			0	38.759332 °
DRAFT			-121.695158	0	-121.696063 °	
DWR ID						
Action/Comments						

Action/Comments

Inspector Comments: 2011 - Toe scour and bank slumping. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-5_R]

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	3.50	Rating **	U	Issue No.		20	
LM End	3.50	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory	alegory					End	
Item	Erosion / Bank Caving			38.759910°		38.759910°	
item	item				20°	0 ° -121.696920 °	
DWR ID	DWR_NA0	008_01_f _ 201	5_20				
		Action/	Comme	nts			
Note and r	nonitor ero	sion site.					

	A T		
100			
1			4.7
			77
		经	

Photo 1 of 2: FA_2015_NA0008_256_20_20150914_00005.jpg

Deep erosion at the bottom of the waterside slope 3-4 foot cut. Fall 2013

 LM Start
 3.50
 Rating **
 U
 Issue No.
 20 (cont)

 LM End
 3.50
 Issue Type +
 Ma
 Location *
 WS

Photo 2 of 2: FA_2015_NA0008_256_20_20151005_00020.jpg



View of the erosion on the waterward side of the levee looking upstream. Fall 2015.

LM Start	3.88	Rating **	М	Issue No.	1		
LM End	3.95	Issue Type +	Ma	Location *	WS		
Category	Suppleme	GPS Latitude/Longitude					
Calegory			Start		End		
Item		2015 USACE Erosion Survey,			7 °	38.764905	0
DRAFT				-121.70143	1 °	-121.702074	0
DWR ID							
		A - C /	<u> </u>	-1-			

Action/Comments

Inspector Comments: 2011 - Toe erosion and erosion pockets from tree popouts. More tree popouts are expected due to the eroding toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-9_R]

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	4.28 Rating ** M		Issue No.		21	
LM End	4.28 Issue Type + Ma		Location *		WS	
Category Earthen Levee				GPS Latitude/Longitude		
				Start		End
Item	Animal Co	ontrol		38.7696	08 °	38.769608 °
item	em				76 °	-121.703076 °
DWR ID	DWR ID DWR_NA0008_01_f _ 2015_21					
Action/Comments						

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Photo 1 of 1 : FA_2015_NA0008_256_21_20151005_00021.jpg

View of the rodent holes on the waterward side of the levee looking upstream. Fall 2015.

LM Start	4.38	4.38 Rating ** M		Issue No.		22	
LM End	4.88	Issue Type +	En	Location *	ation * LS	LS	
Category	Earthen L	evee		GPS La	atitud	e/Longitude	
Calegory				Start		End	
Item	Encroach	ments		38.7710	03 °	38.777404 °	
пеш	item					-121.707412 °	
DWR ID DWR_NA0008_01_f _ 2015_22							
Action/Comments							

Ditch

Inspector Comments: Ditch is at the levee toe on the landward side.



View of the ditch on the landward side of the levee looking upstream. Fall 2015.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	4.89	Rating **	М	Issue No.		33
LM End	4.89	Issue Type +	En	Location *		LS
Category	GPS Latitude/Longitude					
Calegory	Category					End
Item	DWR UCI	P Field Study		38.77756	66°	38.777566 °
пеш				-121.70759	91 °	-121.707591 °
DWR ID						

Action/Comments

Inspector Comments: FS_ID:11264

DS_ID:19367 EP_NO: 4443 FS_HLM: 4.948

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Pipe does not have adequate cover at crown. FIELD_STRUCT_DESC: 16-inch drainage pipe through the levee 0.5feet below the crown. Pad constructed over pipe for vehicular crossing. Pump on metal structure on the landward side, flap gate on the waterside end, Siphon breaker on the pipe on the waterside. Slide gate located on LS toe. (Permit No. 4443-RD 730). Design drawings available in permit.

FS Date: 04/05/2013

LM Start	4.89	Rating **	М	Issue No.	33 (cont)
I M End	4.89	Issue Type +	Fn	Location *	LS



Pump on Steel pile structure with slide gate at LS toe.

Photo 2 of 3: UCIP FA 2015 0196.jpg



Siphon and air vent on WS shoulder.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	4.89	Rating **	M	Issue No.		33 (cont)		
LM End	4.89	Issue Type +	En	Location *	LS			
Category	Suppleme	ental		GPS La	atitud	le/Longitude		
Calegory						End		
DWR UCIP Field Study			38.7775	66 °	38.777566 °			
пеш	m _				91 °	-121.707591 °		
DWR ID								
		Action/	Comme	nts				
Inspector Comments: FS_ID:11264 DS_ID:19367 EP_NO: 4443 FS_HLM: 4.948 Repair Type: Non-Urgent Crossing Status: Found								

Photo 3 of 3: UCIP_FA_2015_0197.jpg

Pump and pipe on LS toe.

LM Start	5.26	5.26 Rating ** M				23	
LM End	5.26	Issue Type +	Ma	Ma Location * C	CR		
Category	Earthen L	evee		GPS La	titud	le/Longitude	
Calegory			Start		End		
Item	Crown Su	ssions /	38.7813	36°	38.781336 °		
пеш	Rutting			-121.7123	68°	-121.712368 °	
DWR ID	/R ID DWR_NA0008_01_f _ 2015_23						
Action/Comments							

Repair depressions or ruts in the crown or slope.

No Photos

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	6.00	Rating **	М	Issue No.		34
LM End	6.00	Issue Type +	En	Location *		CR
Catagony	GPS Latitude/Longitude					
Calegory	Category					End
Item	DWR UCI	P Field Study		38.78892	21 °	38.788921 °
item				-121.72198	35 °	-121.721985 °
DWR ID						

Action/Comments

Inspector Comments: FS_ID:41068

DS_ID:19397 EP_NO: 5276 FS_HLM: 6.064

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Pipe appears abandoned at this time.

FIELD_STRUCT_DESC: 2 of 2: 20-inch steel irrigation pipe through the levee 4.9-feet below the crown. Vertical pump unit on pile structure in stream. Siphon breaker on the landward shoulder in 16-inch steel riser. Flap gate on the landward end. Discharges into irrigation ditch at the landward side. (Permit No. 5276-RD 730 replaced an 18-inch at this location). Steel plate welded over end of pipe at pump structure.

FS Date: 04/05/2013

LM Start	6.00	Rating **	М	Issue No.	34 (cont)
LM End	6.00	Issue Type +	Fn	Location *	CR



Siphon breaker buried inside 16-inch steel riser on LS shoulder.



Steel plate welded over pipe end at pump platform.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	6.00	Rating **	М	Issue No.		34 (cont)
LM End	6.00	Issue Type +	En	Location *		CR
Category	Suppleme	GPS La	titud	e/Longitude		
Calegory				Start		End
Item	DWR UC	DWR UCIP Field Study			21 °	38.788921 °
пеш				-121.72198	35 °	-121.721985 °
DWR ID						·
		A - 1' /	<u> </u>	-1-		

Action/Comments

Inspector Comments: FS_ID:41068

DS_ID:19397 EP_NO: 5276 FS_HLM: 6.064

Repair Type: Non-Urgent Crossing Status: Found



Pump on steel structure at WS toe.

Photo 1 of 2: FA_2015_NA0008_256_7_20151005_00023.jpg

LM Start	6.07	77 Rating ** M Issue No.		Issue No.		7		
LM End	6.34	Issue Type +	En	Location *	LS			
Category	Earthen Levee			GPS Latitude/Longitude				
Calegory				Start		End		
Item	Encroachments			38.7896	41 °	38.792433	0	
пеш			-121.7229	58 °	-121.726463	0		
DWR ID	DWR_NA0008_01_s _ 2012_7							

Issue No.

Location *

Action/Comments

Rating **

Issue Type +

6.07

6.34

Equipment

LM Start

LM End

Inspector Comments: Equipment are on the slope of the levee.

				+
- Carrie		A Page		Carlotte
THE STATE OF THE S			O MA	
		N. S. C. S.		Full X Day
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	10 m			09/29/2015

View of the equipment on the landward side of the levee looking upstream. Fall 2015.

Photo 2 of 2: FA_2015_NA0008_256_7_20150914_00002.jpg



A current view of the equipment on the levee slope. Spring 2014

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiancy
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescend

7 (cont)

LS

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Knights Landing Ridge Cut	Right	6.36	09/29/2015 09/29/2015	Jai Lor

LM Start	6.23	Rating **	М	Issue No.	24				
LM End	6.23	Issue Type +	Ma	Location *	WS				
Category	Earthen Levee			GPS La	tituc	le/Longitude			
Calegory				Start		End			
Item	Animal Co	Animal Control			86 °	38.791286 °			
item				-121.725034 °		-121.725034 °			
DWR ID	DWR_NA0	DWR_NA0008_01_f _ 2015_24							
Action/Comments									
Exterminate rodents and backfill and compact or grout burrows.									

Photo 1 of 1 : FA_2015_NA0008_256_24_20151005_00024.jpg

View of the rodent holes on the waterward side of the levee looking downstream. Fall 2015.

LM Start	6.29	Rating **	U	Issue No.		25			
LM End	6.29	Issue Type +	Ma	Location *		WS			
Category Earthen Levee			GPS La	atitud	le/Longitude				
Calegory				Start		End			
Item	Animal Control			38.791949 °		38.791949 °			
пеш				-121.725921 °		-121.725921 °			
DWR ID	DWR_NA0	008_01_f _ 201	5_25						
		Action/	Comme	nts					
Extermina	Exterminate rodents and backfill and compact or grout burrows.								
	, J								



View of the animal hole on the waterward side of the levee looking upstream. Fall 2015.

Unit Cover Sheet

Fall 2015 Levee Inspection Results

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles
Unit No. 02 Knights Landing Ridge Cut	Left	6.03

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			U	
Date of Inspection	04/23/2015 - 04/23/2015		09/29/2015 - 09/29/2015	
DWR Inspector	Jai Lor		Jai Lor	
Accompanied By				

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	0.00	Rating **	Α	Issue No.	14				
LM End	5.94	Issue Type +	Ma	Location *	WS				
Category	Earthen Levee			GPS Latitude/Longitude					
Calegory				Start		End			
Item	Vegetation				73 °	38.792721	0		
пеш				-121.6652	89 °	-121.724112	0		
DWR ID	DWR_NA0								
	Action/Comments								

Control annual grass and weeds on the levee slopes and easements. Inspector Comments: The slope has been mowed and in compliance.

No Photos

LM Start	0.99	Rating **	М	Issue No.		231	
LM End	0.99	Issue Type +	En	Location *	WS		
Catagony	Suppleme	ental		GPS La	titud	e/Longitude	
Category				Start		End	
Item	DWR UCI	P Field Study		38.73312	20 °	38.733120 °	
item				-121.67938	33 °	-121.679383 °	
DWR ID							

Action/Comments

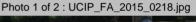
Inspector Comments: FS_ID:11307

DS_ID:19370 EP_NO: 9320 FS_HLM: 0.998 Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Appears abandoned as pump is missing from platform.

FIELD_STRUCT_DESC: 16-inch steel pipe through the levee 2.8-feet below the crown. Discharges into 36-inch concrete standpipe at levee toe. Pump on steel pile structure in stream with metal walkway. Two service poles on the waterward slope. (Permit No. 9320-Pollock) Originally included in O+M manual 1953.

FS Date: 04/09/2013





Pump platform and walkway on WS toe.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	0.99	Rating **	М	Issue No.		231 (cont)
LM End	0.99	Issue Type +	En	Location *	WS	
Category	Suppleme	ental		GPS La	tituc	le/Longitude
Calegory			Start		End	
Itom	DWR UCI	P Field Study		38.73312	° 02	38.733120 °
Item				-121.67938	33 °	-121.679383 °
DWR ID					·	

Action/Comments

Inspector Comments: FS_ID:11307

DS_ID:19370 EP_NO: 9320 FS_HLM: 0.998 Repair Type: Non-I

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Appears abandoned as pump is missing from

platform.

FIELD_STRUCT_DESC: 16-inch steel pipe through the levee 2.8-feet below the crown. Discharges into 36-inch concrete standpipe at levee toe. Pump on steel pile structure in stream with metal walkway. Two service poles on the waterward slope. (Permit No. 9320-Pollock)

Originally included in O+M manual 1953.

FS Date: 04/09/2013



Pipe at 36-inch Concrete standpipe on LS toe.

LM Start	1.89	Rating **	U	Issue No.		232	
LM End	1.89	Issue Type +	En	Location *		WS	
Category	Suppleme	ental		GPS La	atitud	le/Longitude	
Calegory		Start		End			
Itom	DWR UCI	P Field Study		38.7437	68 °	38.743768	0
Item				-121.6891	85 °	-121.689185	0
DWR ID							

Action/Comments

Inspector Comments: FS_ID:11306

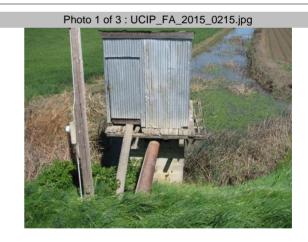
DS_ID:19371 EP_NO: 9320 FS_HLM: 1.911 Repair Type: Urgent Crossing Status: Found

UCIP Comments: Pipe at flap gate rusted through at WS toe. Flap gate

does not function properly.

FIELD_STRUCT_DESC: 1 of 2: 12-inch pipe through the levee, 4-feet below the crown. Flap gate on waterward end at concrete headwall, siphon breaker in 2-inch CM pipe riser on the landward shoulder. Vertical pump unit on concrete foundation in irrigation ditch at the LS toe. (Permit No. 9320-Pollock) Originally included in O+M manual 1953.

FS Date: 04/09/2013



Pumphouse on concrete platform on LS toe with JP.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	1.89	Rating **	U	Issue No.	232 (cont)		
LM End	1.89	Issue Type +	En	Location *	WS		
Category				GPS Latitude/Longitude			
Calegory				Start		End	
Itom	DWR UCIP Field Study			38.74376	88°	38.743768 °	
Item				-121.68918	35 °	-121.689185 °	
DWR ID							

Action/Comments

Inspector Comments: FS_ID:11306

DS_ID:19371 EP_NO: 9320 FS_HLM: 1.911 Repair Type: Urgent Crossing Status: Found

UCIP Comments: Pipe at flap gate rusted through at WS toe. Flap gate

does not function properly.

FIELD_STRUCT_DESC: 1 of 2: 12-inch pipe through the levee, 4-feet below the crown. Flap gate on waterward end at concrete headwall, siphon breaker in 2-inch CM pipe riser on the landward shoulder. Vertical pump unit on concrete foundation in irrigation ditch at the LS toe. (Permit No. 9320-Pollock) Originally included in O+M manual 1953.

FS Date: 04/09/2013

LM Start	1.89	Rating **	U	Issue No.	232 (cont)
LM End	1.89	Issue Type +	En	Location *	WS



Pipe rusted through at flap gate on WS toe.

Photo 3 of 3: UCIP_FA_2015_0217.jpg



12-inch pipe at concrete headwall on WS toe.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	2.26	Rating **	М	Issue No.		233	
LM End	2.26	Issue Type +	En	Location *		WS	
Category	Suppleme	ental		GPS La	atitud	e/Longitude	
Category				Start		End	
Item	DWR UC	IP Field Study		38.7482	82 °	38.748282	0
пеш				-121.6926	52 °	-121.692652	0
DWR ID							
			_				

Action/Comments

Inspector Comments: FS_ID:11304

DS_ID:19388 EP_NO: 15517 FS_HLM: 2.281

Repair Type: Non-Urgent Crossing Status: Indicator Found No Photos

LM Start	2.28	Rating **	U	Issue No.		234	
LM End	2.28	Issue Type +	En	Location *		WS	
Category	Suppleme	ental		GPS La	titud	e/Longitude	
Calegory		Start		End			
Itom	DWR UCI	P Field Study		38.74850)5 °	38.748505	0
Item				-121.69269	97 °	-121.692697	0
DWR ID							

Action/Comments

Inspector Comments: FS_ID:41832

DS_ID:19386 EP_NO: 13164 FS_HLM: 2.297 Repair Type: Urgent

Crossing Status: Indicator Found

UCIP Comments: Need to have pipe located and marked properly if still in use.

FIELD_STRUCT_DESC: 4-inch steel natural gas collection pipe through the levee 3.2-feet below the crown. (Permit No. 13164, 1981). Design drawings available in permit.

FS Date: 04/09/2013

Photo 1 of 1: UCIP_FA_2015_0214.jpg

Sign on LS shoulder may indicate location of pipe, or it may indicate where pipe crosses approach ramp to bridge.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

	LM Start	2.72	Rating **	М	Issue No.		2		
	LM End	2.93	Issue Type +	Ma	Location *	WS			
	Category	Suppleme	ental	GPS Latitude/Longitude					
					Start		End		
	Item	2015 USACE Erosion Survey,			38.75489	99°	38.757925	٥	
		DRAFT			-121.69265	53 °	-121.693048	0	
	DWR ID								
	Action/Comments								

No Photos

Inspector Comments: 2006 - The whole levee toe area is slowly slumping into the channel (creep) due to dewatering and poor slope soils. Occasional piping in the levee slope evident as well. Pistolbutted trees at the levee toe indicate slow retreat. 2011 - Multiple scallops throughout the site and slumping of the toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-0_L]

LM Start	2.98	Rating **	М	Issue No.		5	
LM End	3.11	Issue Type +	Ма	Location *	cation *		
Supplemental			GPS Latitude/Longitude				
Calegory			Start		End		
Item		CE Erosion S	Survey,	38.7585	37 °	38.760053	0
пеш	DRAFT		-121.6933	59 °	-121.694686	0	
DWR ID							

No Photos

Action/Comments

Inspector Comments: 2006 - The whole levee toe area is slowly slumping into the channel (creep) due to dewatering and poor slope soils. Occasional piping in the levee slope evident as well. Pistolbutted trees at the levee toe indicate slow retreat. 2011 - Slumping of the levee toe. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-1_L]

LM Start	3.02	Rating **	С	Issue No.		230	
LM End	3.02	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS La	titud	le/Longitude	
Category				Start		End	
Item	Erosion /	Bank Caving		38.7591	12 °	38.759112	0
item				-121.6936	38 °	-121.693638	0
DWR ID	DWR_NA0	008_02_f _ 201	3_230				
		Action/	Comme	nts			

No Photos

* Location LS : Land Side N/A : Not Applicable

CR : Crown

Note and monitor erosion site.

A : Acceptable M : Minimally Acceptable U : Unacceptable

N: Not Inspected/Rated A/W: Acceptable but Monitor & Maintain Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	3.06	Rating **	С	Issue No.		229	
LM End	3.06	Issue Type +	Ма	Location *		WS	
Category	Earthen L	evee		GPS Latitude/Longitude		e/Longitude	
Category				Start		End	
Item	Erosion /	Bank Caving		38.7595	42 °	38.759542	۰
пеш				-121.6940	07 °	-121.694007	0
DWR ID	DWR_NA0	008_02_f _ 201	3_229				
		Action/	Comme	nts			

Note and monitor erosion site.

Inspector Comments: Erosion is undermining large oak tree and is growing.

No Photos

Rating ** Issue No. LM Start 3.60 M 3 LM End 3.73 Issue Type + Ma Location * WS Supplemental GPS Latitude/Longitude Category Start End 2015 USACE Erosion Survey, 38.765522 ° 38.767336 ° Item DRAFT -121.700608° -121.701023 ° DWR ID

Action/Comments

Inspector Comments: 2011 - The toe has eroded away and there are a few scallops from bank slumping. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_3-7_L]

No Photos

LM Start	4.17	Rating **	М	Issue No.		20
LM End	4.90	Issue Type +	Ma	Location *		LS
Category	Earthen Levee			GPS Latitude/Longitude		
Category				Start	End	
Item	Vegetatio	n		38.7735	54 °	38.781930 °
item		-121.702435 ° -121.7104				
DWR ID DWR_NA0008_02_f _ 2015_20						
		Action/	Commo	nte		

Control annual grass and weeds on the levee slopes and easements.

Photo 1 of 1 : FA_2015_NA0008_257_20_20151005_00023.jpg



View of the vegetation on the landward side of the levee looking downstream. Fall 2015.

* Location

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating

A: Acceptable N: Not Inspected/Rated M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain

** Rating

A: Issue Type

Ma: Maintenance Deficiancy
Ob: Design & System Obsolescence
En: Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	4.30	Rating **	М	Issue No.		4	
LM End	4.55	Issue Type +	Ma	Location *		WS	
Category	Suppleme	ental		GPS Latitude/Longitude			
Calegory				Start		End	
Item		CE Erosion S	Survey,	38.77527	°	38.778115 °	
пеш	DRAFT			-121.70368	°	-121.706195°	
DWR ID							

Action/Comments

Inspector Comments: 2011 - This site is the downstream section of the old KLR 5.3L site. Levee toe is slowly retreating. Cracking on top of the levee may indicate potential mass movement. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_4-7_L]

No Photos

LM Start	4.35	Rating **	М	Issue No.		23	
LM End	4.35	Issue Type +	En	Location *		WS	
Category	Catagoni Earthen Levee				GPS Latitude/Longitude		
Calegory	ory			Start		End	
Item	Encroachi	ments		38.7759	88 °	38.775988	
пеш				-121.7038	87 °	-121.703887	
DWR ID	DWR_NA0	008_02_f _ 201	5_23				

Action/Comments

Tree or limb

Photo 1 of 1 : FA_2015_NA0008_257_23_20151005_00027.jpg



Perspective view of the fallen tree on the waterward side of the levee looking downstream. Fall 2015.

Photo 1 of 2: FA_2015_NA0008_257_15_20150914_00004.jpg

LM Start	4.59	Rating **	U	Issue No.		15	_
LM End	4.59	Issue Type +	Ma	Location *		WS	
Category	Earthen L	evee		GPS Latitude/Longitude			
Category				Start	End		
Item	Vegetatio	n		38.7787	73 °	38.778773	0
пеш				-121.7064	82 °	-121.706482	0
DWR ID DWR_NA0008_02_s _ 2014_15							
		Action/	Comme	nts			

Trees / Woody Vegetation

Inspector Comments: Identified trees shall be removed and associated root balls and roots shall be appropriately removed since it threatens the integrity of the levee.



A cottonwood tree may have been struck by lighting. The tree is split into three parts. Spring 2014

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	4.59	Rating **	U	Issue No. 15 (cont)			
LM End	4.59	Issue Type +	Ma	Location *	WS		
Category	Earthen L		GPS Latitude/Longitude				
Calegory				Start End			
Item	Vegetatio	n		38.7787	73 °	38.778773 °	
item			-121.706482 ° -121.70648				
DWR ID DWR_NA0008_02_s _ 2014_15							
		Action/	Comme	nts			

Trees / Woody Vegetation

Inspector Comments: Identified trees shall be removed and associated root balls and roots shall be appropriately removed since it threatens the integrity of the levee.

Photo 2 of 2 : FA_2015_NA0008_257_15_20151005_00026.jpg



The cottonwood tree has broken and is on the waterward side of the levee. Fall 2015.

LM Start	4.72	Rating **	М	Issue No.		228	
LM End	4.72	Issue Type +	Ob	Location *		LS	
Category	evee	GPS La	atitud	e/Longitude			
Calegory			Start		End		
Item	Cracking			38.7800	80°	38.780080	0
пеш				-121.7081	37 °	-121.708137	0
DWR ID DWR_NA0008_02_f _ 2013_228							
Action/Comments							

Monitor and have inspected by geotechnical engineer.

No Photos

LM Start	4.76	Rating **	М	Issue No.		21	
LM End	4.76	Issue Type +	Ob	Location *		WS	
Category	Earthen L	evee	GPS Lati	tud	e/Longitude		
Category	egory					End	
Item	Cracking			38.780496	°	38.780496	٥
пеш				-121.70867	0	-121.708671	0
DWR ID	DWR_NA0008_02_f _ 2015_21						

Action/Comments

Schedule repair of subsidence prior to the next inspection. Inspector Comments: Dessication crack is 7 inches wide and 2 feet deep.



View of the dessication crack on the waterward side of the levee looking downstream. Fall 2015.

** Rating

LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown

** Rating

A: Acceptable N: Not Inspected/Rated Ma: Maintenance Deficiancy

M: Minimally Acceptable C: Corrected Ob: Design & System Obsolescence

U: Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	4.79	Rating **	М	Issue No.		226
LM End	4.82	Issue Type +	Ob	Location *		LS
Category	Earthen L	GPS Latitude/Longitude				
Calegory	egory				Start	
Item	Cracking			38.7808	58 °	38.781102
item				-121.7090	93 °	-121.709385
DWR ID DWR_NA0008_02_f _ 2013_226						
Action/Comments						

Monitor and have inspected by geotechnical engineer.

Photo 1 of 1 : FA_2015_NA0008_257_226_20150914_00005.jpg

Cracking on the landside is 3-4 inches wide and 12 inches deep. Fall 2013

LM Start	4.79	Rating **	M	Issue No.		227	
LM End	4.79	Issue Type +	Ob	Location *		WS	
Category	Earthen L	evee		GPS Latitude/Longitude			
Calegory				Start		End	
Item	Cracking			38.7808	58 °	38.780858	٥
item				-121.7090	95 °	-121.709095	0

Action/Comments

DWR_NA0008_02_f _ 2013_227

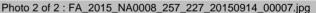
DWR ID

Monitor and have inspected by geotechnical engineer.

Photo 1 of 2: FA_2015_NA0008_257_227_20150914_00006.jpg
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Another view of the cracking on the levee slope. Fall 2013

LM Start	4.79	Rating **	М	Issue No.	227 (cont)
LM End	4.79	Issue Type +	Ob	Location *	WS





Cracking on levee slope 1-2 inches wide and 6 inches deep. Fall 2013

* Location

LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown

** Rating

A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable U : Unacceptable U : Unacceptable A/W : Acceptable but Monitor & Maintain

** Rating

A : Asceptable N : Not Inspected/Rated M : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	4.90	Rating **	Α	Issue No.		13	
LM End	5.94	Issue Type +	Ма	Location *		LS	
Category	Earthen L	GPS Latitude/Longitude					
Calegory			Start		End		
Item	Vegetatio	n		38.7819	30°	38.792721 °	
пеш				-121.7104	16°	-121.724113 °	
DWR ID	ID DWR_NA0008_02_f _ 2015_13						
A - 1' - 1 / O 1 -							

Action/Comments

Control annual grass and weeds on the levee slopes and easements. Inspector Comments: The slope has been mowed and in compliance.

Photo 1 of 1: FA_2015_NA0008_257_13_20151005_00015.jpg



View of the vegetation on the landward side of the levee looking downstream. Fall 2015.

LM Start	5.36	Rating **	М	Issue No.		6	
LM End	5.93	Issue Type +	Ma	Location *		WS	
Category	Suppleme	ental		GPS La	atitud	le/Longitude	
Calegory	egory					End	
Item		ACE Erosion S	Survey,	38.7865	66 °	38.792395	0
item	DRAFT	DRAFT			24 °	-121.724091	0
DWR ID							
	Action/Comments						

Inspector Comments: 2011 - This site is the upstream section of the old KLR 5.3L site. Levee toe is slowly retreating. Cracking on top of the levee may indicate potential mass movement. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: KLR_5-8_L]

No Photos

5.54	Rating **	М	Issue No.		17	
5.54	Issue Type +	Ma	Location *		LS	
rthen L	evee		GPS La	atitud	e/Longitude	
	Start		End			
imal Co		38.7885	92 °	38.788592	0	
			-121.7189	02 °	-121.718902	0
DWR_NA0008_02_f _ 2015_17						
	5.54 rthen L	5.54 Issue Type + rthen Levee imal Control	5.54 Issue Type + Ma rrthen Levee imal Control	5.54 Issue Type + Ma Location * rthen Levee GPS La Start imal Control 38.7885 -121.7189	5.54 Issue Type + Ma Location * rthen Levee	5.54 Issue Type + Ma Location * LS rthen Levee

Action/Comments

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Photo 1 of 2: FA_2015_NA0008_257_17_20151005_00016.jpg



Perspective view of the slope damaged by rodent burrows on the landward side of the levee looking downstream. Fall 2015.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side	A : Acceptable M : Minimally Acceptable	N : Not Inspected/Rated C : Corrected	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	5.54	5.54 Rating ** M				17 (cont)
LM End	5.54	Issue Type +	Type + Ma Location *			LS
Earthen Levee				GPS La	titud	le/Longitude
Calegory	Category					End
Item	Animal Co	ontrol		38.7885	92 °	38.788592 °
item				-121.7189	02 °	-121.718902 °
DWR ID DWR_NA0008_02_f _ 2015_17						
		Action/	Commo	ntc		

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Photo 2 of 2: FA_2015_NA0008_257_17_20151005_00017.jpg



The rodent hole does not seem to go through the levee. Fall 2015.

LM Start	5.55	Rating **	М	Issue No.		235		
LM End	5.55	Issue Type + En		Location *		LS		
Category	Catagori Supplemental				GPS Latitude/Longitude			
Calegory				Start		End		
Item	DWR UCI	P Field Study		38.7886	62 °	38.788662	0	
item				-121.7189	97 °	-121.718997	0	
DWR ID								

Action/Comments

Inspector Comments: FS_ID:11289

DS ID:19375 EP_NO: 3671 FS_HLM: 5.638

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Electrical panal missing parts. Siphon breaker missing from pipe on LS. Pipe heavily corroded at outlet with holes present. Appears abandoned-should be abandoned properly. FIELD_STRUCT_DESC: 20-inch steel pipe through the levee, 5.5-feet below the crown. Siphon breaker in a steel pipe riser on the landward slope. Metal cutoff wall . Service pole on the waterward slope. (Permit No. 3671-Wallace Replaced 20-inch pipe at same location in 1961) FS Date: 04/09/2013



Concrete headwall and distribution box at outlet on LS toe. Pipe heavily corroded.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	5.55	Rating **	М	Issue No.		235 (cont)
LM End	5.55	Issue Type +	En	Location *		LS
Category	GPS La	titud	e/Longitude			
Calegory				Start		End
Item	DWR UCI	IP Field Study		38.7886	62 °	38.788662
пеш				-121.7189	97 °	-121.718997
DWR ID						`

Action/Comments

Inspector Comments: FS_ID:11289

DS_ID:19375 EP_NO: 3671 FS_HLM: 5.638

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: Electrical panal missing parts. Siphon breaker missing from pipe on LS. Pipe heavily corroded at outlet with holes present. Appears abandoned-should be abandoned properly.

FIELD_STRUCT_DESC: 20-inch steel pipe through the levee, 5.5-feet below the crown. Siphon breaker in a steel pipe riser on the landward slope. Metal cutoff wall. Service pole on the waterward slope. (Permit No. 3671-Wallace Replaced 20-inch pipe at same location in 1961)

FS Date: 04/09/2013

LM Start	5.55	Rating **	M	Issue No.	235 (cont)
LM End	5.55	Issue Type +	Fn	Location *	LS



Missing siphon breaker on LS slope.



Pump on pile structure on WS toe.

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	5.66	Rating **	U	Issue No.	16		٦
LM End	5.66	Issue Type +	Ma	Location *	LS		
Category	evee		GPS La	atitud	le/Longitude		
Calegory			Start		End		
Item	Animal Co	ontrol		38.7897	94 °	38.789794	0
item				-121.7203	38 °	-121.720338	0
DWR ID DWR_NA0008_02_f _ 2015_16							
Action/Comments							

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.



Perspective view of the animal hole on the landward side of the levee looking downstream. Fall 2015.

Rating ** Issue No. LM Start 5.66 16 (cont) Issue Type + Location * LS LM End 5.66

Photo 2 of 2: FA_2015_NA0008_257_16_20151005_00022.jpg



There seems to be more than 2 cubic feet of material on the landward side of the levee. Fall 2015.

LM Start	5.72	Rating **	М	Issue No.	19		
LM End	5.72	Issue Type +	Ma	Location *	LS		
Category Earthen Levee				GPS La	atitud	le/Longitude	
Calegory	Category					End	
Item	Animal Co	ontrol		38.7903	85 °	38.790385 °	
пеш				-121.7211	31 °	-121.721131 °	
DWR ID DWR_NA0008_02_f _ 2015_19							
	Action/Comments						

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side	A : Acceptable M : Minimally Acceptable	N : Not Inspected/Rated C : Corrected	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	5.79	Rating **	M	Issue No.		18
LM End	5.79	Issue Type +	En	Location *		LS
Category	Earthen L	evee		GPS La	atitud	e/Longitude
Calegory				Start		End
Item	Encroachi	ments		38.7911	69 °	38.791169°
item				-121.722147 °		-121.722147 °
DWR ID	DWR_NA0	008_02_f _ 201	5_18			
		Action/	Comme	nts		
Ditch Inspector (Comments	: Ditch is dug	on the la	andside slo	pe o	f the levee.

5.79

5.79

LM Start

LM End

Rating **

Issue Type +

Issue No.

Location *

18 (cont)

LS

Photo 1 of 2: FA_2015_NA0008_257_18_20151005_00018.jpg	i
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09/29/2016	

Perspective view of the ditch on the landward slope of the levee looking downstream. Fall 2015.

Photo 2 of 2: FA_2015_NA0008_257_18_20151005_00020.jpg



The ditch is dug onto the landward slope of the levee. Fall 2015.

LM Start	5.94	Rating **	С	Issue No.		12
LM End	5.94	Issue Type +	En	Location *	WS	
Category	Catagoni Earthen Levee			GPS Latitude/Longitude		
Category			Start		End	
Encroachments Item			38.7926	61 °	38.792661 °	
пеш					47 °	-121.724047 °
DWR ID	DWR_NA0					
Action/Comments						
Debris						

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Knights Landing Ridge Drainage District

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 Knights Landing Ridge Cut	Left	6.03	09/29/2015 09/29/2015	Jai Lor

LM Start	5.94	Rating **	М	Issue No.		1	
LM End	5.94	Issue Type +	En	Location *	LS		
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory				Start End			
Item Encroachments				38.7927	35 °	38.792735 °	
item				-121.7240	92 °	-121.724092 °	
DWR ID DWR_NA0008_02_s _ 2012_1							
Action/Comments							
Crops Inspector Comments: No access; strawberries are being grown landside levee slope and crown							

Photo 1 of 2: FA_2015_NA0008_257_1_20150914_00001.jpg

Strawberry patch on the levee crown has added other crops on the crown. Fall 2013

Photo 2 of 2: FA_2015_NA0008_257_1_20150914_00002.jpg



Crops (strawberries and berry vines) are planted on the crown with a fence blocking access. Spring 2014

LM Start	5.94	Rating **	М	Issue No.	1 (cont)
LM End	5.94	Issue Type +	En	Location *	LS